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## SECTION 5 — PARKING BRAKE BRACKET

### Parking brake bracket — To remove

The parking brake bracket and governor sleeve assembly can be removed from the gearbox only after removal of the side cover and the control valve unit It is not necessary to remove the gearbox from the car for this operation.

Remove the side cover (see Section 3) and the control valve unit (see Section 4) then disengage the return spring from the pillar on the parking brake lever.

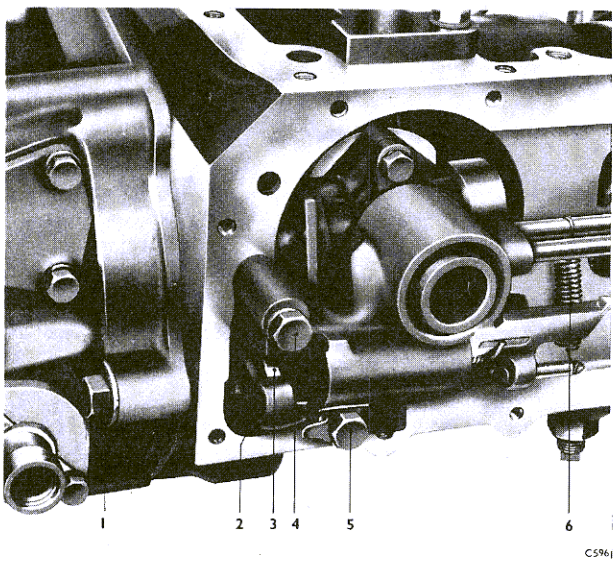


**Fig. 56 Disconnecting points**

1 PARKING PAWL SCREW
2 PARKING PAWL
3 PARKING PAWL ROLLER
4 RETAINING SCREW AND SPRING WASHER
5 RETAINING SCREW AND TAB WASHER
6 PARKING BRAKE LEVER RETURN SPRING

The parking brake bracket disconnecting points are clearly shown in Figure 56.

Unlock the tab washer, then unscrew and withdraw the parking pawl support screw and washer. Remove the parking lever roller from its crank pin. The parking pawl will be left loose in the casing as it cannot be withdrawn until the parking bracket has been removed.

Unlock the front setscrew tab washer, then remove the two securing setscrews and washers securing the parking bracket. Withdraw the parking bracket and governor sleeve assembly from the governor tower. If difficulty is experienced, indicating that grooves have been worn in the governor sleeve bore, the sleeve can be freed by sharply pulling the assembly away from the tower.

Remove the parking pawl from the gearbox casing. It may be necessary to slightly rotate the output shaft to free the pawl from the brake annulus.

### Parking brake bracket — To dismantle

The parking brake bracket assembly need not be dismantled unless the fault diagnosis described in Chapter 2 indicates faulty operation of the reverse or the parking blocker piston and this is confirmed by an air test (see Chapter 2).

To remove the reverse blocker piston, cut off the head of the retaining pin and rotate the parking lever arm to clear the piston. Depress the spring and slide out the pin, using thin-nosed pliers. Withdraw the spring and piston from the bore.

Removal of the parking blocker piston is similar except that the retaining pin is free to be removed without cutting. Use snap ring pliers to withdraw the piston if it resists removal.

## Parking brake bracket — To inspect

Clean all parts, paying particular attention to the oil passages and slots in the main casting; a small amount of sludge and metallic dust can be expected here. Use a compressed air line to clear the oil passages and the reverse clutch oil pipe.

Examine the governor sleeve bore for excessive wear caused by the oil sealing rings or by misalignment of the governor sleeve.

Insert the oil sealing rings in their running position in the governor sleeve bore. Check the ring gaps with feeler gauges; if the gap is larger than that given in the 'Summary of Repair Data' renew the rings. If the new ring gaps are too wide, fit a new governor bracket.

Examine the casting for cracks and other damage, also examine the piston bores and pistons for scoring and burrs which might restrict free movement. Check that the three oil plugs are secure in their ducts.

Check that the parking lever assembly rotates freely in the bearing, and that the return spring pillar is secure in the parking brake lever.

Examine the roller and the crank pin for damage and for excessive wear.

Examine the parking brake pawl for damage and for excessive wear. Check that the support screw rotates freely in the bore in the pawl.

Examine the teeth of the brake annulus for damage and wear.

Examine the reverse clutch oil pipe for damage and for restriction, particularly at the bend; ensure that it fits snugly in the bore in the gearbox casing.

## Parking brake bracket — To assemble

Assemble the parking brake bracket, reversing the procedure given for dismantling noting the following points.

Care must be taken to ensure that the pistons are fitted into the correct bores; the parking brake lever would be rendered inoperative by fouling the head of the parking blocker piston if the blocker piston were fitted in the wrong bore.

When fitting the reverse blocker piston, fit a new retaining pin from the back of the casing and peen the other end of the pin to lock in position.

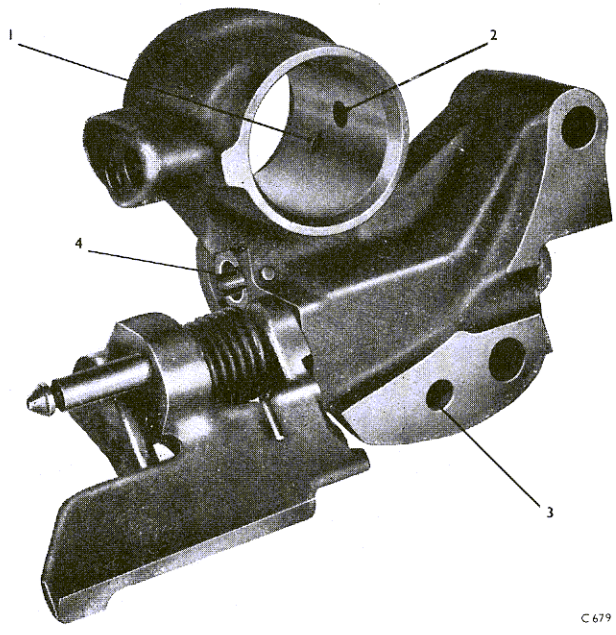


**Fig. 57 Air pressure test points**

1 G1 OIL DUCT
2 MAIN OIL PRESSURE DUCT
3 MAIN OIL PRESSURE INLET
4 REVERSE BLOCKER PISTON

## Parking brake bracket — To test

The parking and reverse blocker pistons should be tested for freedom of movement in their bores after assembly. Intermittent application of air pressure, at approximately 70lb/sq.in., to the points shown in Figure 57 should cause the pistons to move to and fro in their bores.

To test the parking blocker piston, cover the main oil pressure port in the bore of the governor sleeve, then apply air pressure to the main oil pressure inlet; the parking blocker piston should then protrude from the parking brake bracket.

To test the reverse blocker piston, rotate the parking lever arm to allow full travel of the piston, then apply air pressure to the G1 oil duct in the governor sleeve bore; the reverse blocker piston should fully protrude from the parking brake bracket.

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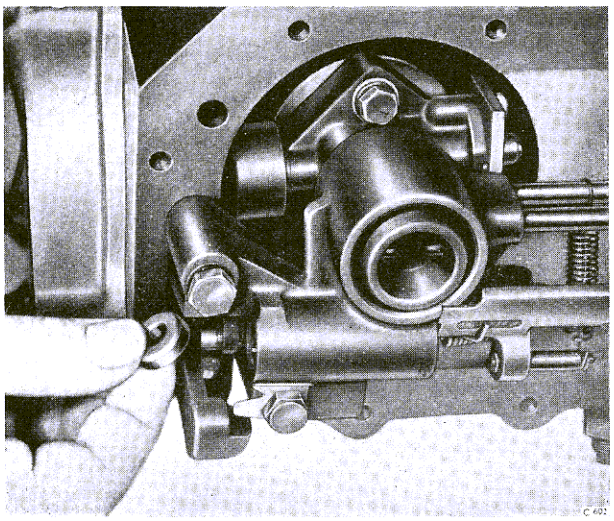

Fig. 58 Fitting parking pawl roller

## Parking brake bracket — To fit

If the parking brake bracket has been renewed due to wear in the governor sleeve bore, the oil sealing rings must be removed from the governor tower and the gaps checked as described earlier in this Section. The 'run-out' of the governor tower should also be checked as described in Section 7.

Remove the parking pawl support screw if it has been refitted for location purposes, then position the parking pawl loosely in the gearbox casing. It may be necessary to slightly rotate the output shaft to allow the pawl to engage with the brake annulus gear.

Align the sealing ring gaps for ease of assembly and apply a light film of gearbox oil to the governor tower and rings. Slide the governor sleeve carefully over the rings. Fit the two securing setscrews with their locking washers, taking care to position the special washer on the setscrew adjacent to the parking blocker piston, so that the largest tab secures in position the blocker piston retaining pin. Screw in the setscrews until they are finger tight but do not lock them at this stage.

Lubricate the roller crank pin and fit the roller (see Fig. 58). Move the parking pawl into position and fit the support screw complete with a new tab washer; **this tab washer acts as an oil seal and must be in good condition.** Tighten the support screw to the correct torque loading, but do not yet lock the screw by means of the tab washer.

Fit the reverse clutch oil pipe and the control valve unit, as described in Section 4, but do not yet fit the parking lever spring as this might interfere when aligning the governor sleeve.

Insert the governor sleeve alignment tool (RH329) into the annulus formed between the governor tower and the sleeve, if necessary lightly tap the sleeve to allow the tool to enter freely (see Fig. 59). Tighten the parking bracket setscrews to the correct torque loading shown in the 'Summary of Repair Data'; remove the tool and check that it has remained free. Check that the tool still enters freely when rotated to several positions.

Turn the gearbox output shaft to rotate the governor through aquarter of a turn, then again insert the alignment tool in several positions. Repeat this check at each quarter of a turn of the governor. If, at any point, the tool will not enter the annulus freely, slacken the parking bracket setscrews and again insert the tool to align the governor sleeve, then tighten the setscrews to the correct torque loading and repeat the complete check.

If difficulty is experienced in satisfactorily aligning the governor sleeve, slacken the securing setscrews securing the rear oil pump and governor and the parking brake bracket, then insert the aligning tool. Tighten the setscrews to the correct torque loading, then again carry out the complete check. The slight movement gained from the slackening of the rear pump and governor setscrews will probably be sufficient to allow correct alignment of the governor sleeve.

When the tool has entered freely into each of the four positions of the governor tower, lock the special tab washer to the parking bracket securing screw, ensuring that the largest tab is positioned to secure in position the parking blocker piston retaining pin.

Lock the parking pawl support screw by bending one tab against the screw head and two tabs against the rear casing.

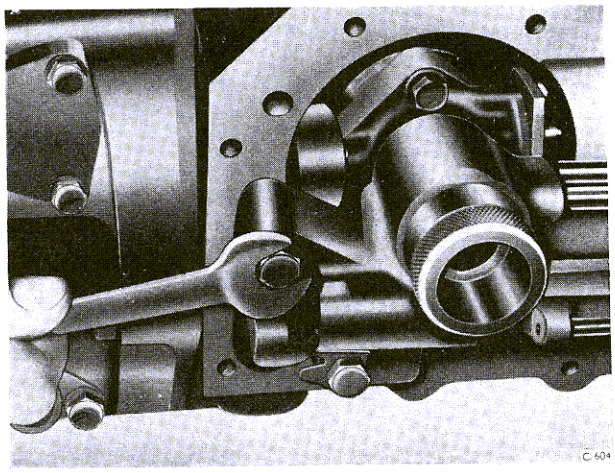


**Fig. 59 Aligning governor and parking bracket**

Fit the free end of the parking lever return spring over the pillar on the parking lever.

Move the selector lever to the reverse position to check that the parking pawl engages correctly in the external teeth on the reverse annulus gear. If the pawl comes to rest on top of a tooth, slowly rotate the annulus gear to allow the pawl to snap into engagement under reverse selector spring tension.